



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/561,289

02/08/2006

Masahiro Machida

F-8918

1654

28107 7590 01/13/2009
JORDAN AND HAMBURG LLP
122 EAST 42ND STREET
SUITE 4000
NEW YORK, NY 10168

EXAMINER

BOES, TERENCE

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

01/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,289	Applicant(s) MACHIDA ET AL.	
	Examiner TERENCE BOES	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4-6, 8, 10-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugawara et al. US 4,674,357.

Sugawara et al. discloses:

- a cam member (12) fixed to an end of the rotary shaft (2, 2b) such that a center of said cam member is eccentric (see figures 1 and 2) to an axial center of said rotary shaft;
- a cam follower (11) which makes contact with the cam member to follow it up
- a gas spring (9) for elastically energizing the cam follower toward the cam member and for generating on the rotary shaft a balancing rotary moment canceling at least a part of the rotary moment, via the cam follower and the cam member.
- wherein: the cam member is comprised of a circular disc member having an axial center eccentric to an axial center of the rotary shaft and the cam follower is constructed so as to contact with a periphery of the disc member (12 is both circular and eccentric as claimed).

Art Unit: 3656

- wherein a direction in which the cam follower is elastically energized by the gas spring faces the axial center of the rotary shaft (vertical direction as in figure 2).
- wherein the rotary shaft supports a table in which a work is detachably mounted in an indexer (see "press" C1/L5-10, also see MPEP 2115)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato US 6,000,298 in view of Sugawara et al. US 4,674,357.

Kato discloses:

- a cam member (5) fixed to an end of the rotary shaft (4)
- a cam follower (6) which makes contact with the cam member to follow it up
- a gas spring (8, 9) for elastically energizing the cam follower toward the cam member and for generating on the rotary shaft a balancing rotary moment canceling at least a part of the rotary moment, via the cam follower and the cam member.
- the cam follower is constructed so as to contact with a periphery of the disc member (see figures 1a, 1b) .

Art Unit: 3656

- wherein a direction in which the cam follower is elastically energized by the gas spring faces the axial center of the rotary shaft (see figures 1a, and 1b).
- wherein the rotary shaft supports a table in which a work is detachably mounted in an indexer (C1/L21-26 , also see MPEP 2115)
- a roller member (6) rotatably mounted to an output member (7) of the gas spring

Kato does not disclose a cam member is comprised of a circular disc member having an axial center eccentric to an axial center of the rotary shaft.

Sugawara et al. teaches a cam member is comprised of a circular disc member having an axial center eccentric to an axial center of the rotary shaft for the purpose of providing an easily manufactured cam for counterbalance.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Kato and provide a cam member is comprised of a circular disc member having an axial center eccentric to an axial center of the rotary shaft, as taught by Sugawara et al., for the purpose of providing an easily manufactured cam for counterbalance.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al. US 4,674,357 in view of Foster et al. US 3,229,496.

Art Unit: 3656

Sugawara et al. discloses a gas spring biasing a cam mechanism for counterbalance as disclosed above. Sugawara et al. does not disclose a hydraulic cylinder with an accumulator biasing a cam for counterbalance. Foster et al. teaches that gas springs and hydraulic cylinders are functional equivalents and can both be used to bias cams for counterbalance (C4/L7-10). Because both Sugawara et al. and Foster et al. teach biasing cams for counterbalancing, it would have been obvious to one having ordinary skill in the art at the time of the invention to substitute a hydraulic cylinder spring with an accumulator for a gas spring to achieve the predictable result of biasing a cam for counterbalance.

Response to Arguments

4. Applicant's arguments, see remarks, filed 10/3/08, with respect to the rejection(s) of claim(s) 1-9 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sugawara et al. US 4,674,357.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Terence Boes/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656